HIGHLY CONFIDENTIAL – SUBJECT TO PROTECTIVE ORDER

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

TWENTIETH CENTURY FOX FILM CORP., et al., Plaintiffs, v. CABLEVISION SYSTEMS CORP., et al., Defendants.	06 Civ. 3990 (DC)
CABLEVISION SYSTEMS CORP., et al., Counterclaim-Plaintiffs, v. TWENTIETH CENTURY FOX FILM CORP., et al., Counterclaim-Defendants.	
THE CARTOON NETWORK LP, LLLP, et al., Plaintiffs, v. CSC HOLDINGS, INC., et al., Defendants.	06 Civ. 4092 (DC)
CABLEVISION SYSTEMS CORP., et al., Counterclaim-Plaintiffs, v. THE CARTOON NETWORK LP, LLLP, et al., Counterclaim-Defendants.	**DECLARATION OF STEPHANIE MITCHKO IN SUPPORT OF DEFENDANTS' MOTION FOR SUMMARY JUDGMENT**
CABLEVISION SYSTEMS CORP., et al., Third-Party-Plaintiffs, v. TURNER BROADCASTING SYSTEM, INC., et al., Third-Party-Defendants.	

STEPHANIE MITCHKO makes the following declaration pursuant to 28 U.S.C. § 1746:

1. I am Vice President of Interactive Platform Engineering at Cablevision Systems Corporation ("Cablevision"), 1111 Stewart Avenue, Bethpage, New York 11714. I joined Cablevision in January 1999.

2. I received a Bachelor of Science in electrical engineering from Brooklyn Polytechnic University in 1987, and for the past 19 years have worked as an engineer in various positions. Before joining Cablevision, I was president and CEO of IRT Inc., a consulting company that worked on a variety of product development projects, including electric vehicle prototyping and personalized energy systems research. I also spent five years running the electronic warfare division of Digital Signal Corporation, where I developed technologies for the U.S. Navy and Air Force and held a top-secret clearance. In 2003, I won an Emmy Award for my work at Cablevision on digital television delivery systems.

3. Beginning in 2005, I became one of the Cablevision engineers principally responsible for the development of the new digital video recording system that Cablevision will provide for use by our customers, which we refer to as the Remote Storage Digital Video Recorder, or RS-DVR. Based on my activities at Cablevision and my review of pertinent business records, as of the date hereof I have personal knowledge of the following facts.

4. I provide in this declaration a basic overview of the functionality and components of the products discussed herein. It is not intended to be an exhaustive discussion.

5. Digital video recorders ("DVR") have been commercially available for a number of years. Such DVRs enable customers to record, store and play back television programming by use of digital technology, including a computer hard-disk drive located inside a set-top box. (This form of DVR is referred to herein as "set-top storage DVR" or "STS-DVR".)

6. Since November 2004, Cablevision has offered Cablevision-owned STS-DVRs to its digital cable customers. The STS-DVRs that Cablevision provides to its customers are manufactured by Scientific Atlanta ("SA") and are known by their model number, 8300. The 8300 enables Cablevision's digital cable customers to use their remote control to digitally record from any channel of linear television programming within the specific tier of programming for which a customer has paid (which includes prescheduled pay-per-view ("PPV") but not Video on Demand ("VOD") or non-traditional interactive services) ("Subscription Programming")[1] (including programming owned by each of the plaintiffs, counterclaim-defendants, and third-party-defendants in these cases), and to play it back for later viewing. Programming recorded with the 8300 is stored on a hard-disk drive contained within the 8300 set-top box.

7. In order to initiate the recording of programming using the 8300, the customer manipulates the remote control (or the buttons on the box) to direct infra-red signals to the set-top box located in his or her home. These signals cause the computer hardware and software located within the 8300 to execute certain functions. These functions are executed through multiple applications and software logic.

8. Provided all the preconditions necessary to record the selected programming are satisfied (for example, the customer must be authorized to receive the program in question and there must be sufficient memory available on the 8300 hard-disk drive to store the program), the 8300 writes a single copy of the program selected by the customer to the set-top box's hard-disk drive.

9. Once a program has been recorded to the 8300's hard-disk drive, the customer may issue one of several commands with respect to that program, such as play or delete.. To

[1] Although PPV programming is paid for on a per-viewing basis, as a matter of convenience, for purposes hereof it shall be subsumed by this definition.

issue these commands, the customer must again manipulate the remote control to direct infra-red signals to the 8300 box on which the recorded program is stored. These signals cause the computer hardware and software located within the 8300 to perform a series of automated functions, which are executed through multiple applications and software logic.

10. Programs currently stored on a customer's 8300 hard-disk drive can be played back by that customer.

11. Cablevision also provides to its digital cable customers two other Cablevision-owned digital cable boxes manufactured by SA. These boxes are also known by their model numbers, 4200 and 1850. The 4200 and 1850 boxes do not contain hard-disk drives and currently do not support digital video recording.

12. Cablevision intends to offer to its customers the option of a Remote Storage Digital Video Recorder. RS-DVR will enable 4200 and 1850 boxes, when supplied with the necessary additional software, to support digital video recording. RS-DVR customers will use the same 8300 remote control and perform the same manual operations as customers using the 8300 to digitally record and play back programming. However, the recorded programming will be stored remotely on servers located at Cablevision's head-ends (a "head-end" is a central facility of a cable operator, which houses much of the software and hardware necessary to run a cable system), rather than on a hard-disk drive within the set-top box.

13. The RS-DVR functions using various component units, including, but not limited to: (1) an advanced remote control (the same remote control used for the 8300) operated by the customer within the customer's home; (2) a program guide that is populated by data stored in a server located at Cablevision's head-end (the same program guide used by Cablevision's 8300 and other digital cable customers); (3) a set-top cable television receiver ("set-top box") located within the customer's home, which set-top box contains computer hardware and software; (4) a

network of wires, relays, switches, and radio frequency ("RF") devices connecting the set-top box in the customer's home to Cablevision's cable television system; and (5) computer hardware and software located at Cablevision's head-end facilities, as described below.

14. The RS-DVR storage is configured as follows: Each of the servers designed for Cablevision by Arroyo Video Solutions, Inc. in connection with the RS-DVR (each, an "Arroyo Server") contains multiple hard-disk drives; each customer's set-top box served by such Arroyo Server is allocated a specified amount of storage capacity on one of those physical hard drives, which capacity is for that customer's use alone. This means that if a customer does not use his or her allotted storage capacity, at least that much space on the hard disk sits empty. All programming recorded by a given customer through a particular set-top box is stored on a given hard drive on a given Arroyo Server. Each hard drive will contain the storage capacity for up to four customers; however, because any given customer's copies are uniquely identified with his set-top box, any given customer's copies are accessible only by such customer and cannot be accessed by any other customer. Because an Arroyo Server contains a limited number of hard drives, multiple Arroyo Servers will be required for the commercial roll-out of the RS-DVR.

RECORDING

15. A customer using the RS-DVR can record all Subscription Programming.

16. Using the RS-DVR, the customer must himself initiate the recording of any programming that he wishes to later view, and can access and play back only those copies that were created upon his initiation.

17. In order to initiate the recording of programming using the RS-DVR, the customer manipulates the remote control to direct infra-red signals to the set-top box located in his or her home. These signals cause the set-top box to send a command to the RS-DVR

computer hardware and software to execute certain functions. These functions are executed through multiple applications and software logic.

18. A customer using the RS-DVR can initiate the recording of television programming in one of two ways. First, the customer can use the remote control to access and manipulate a program guide displayed on the television monitor connected to the set-top box. Through the manipulation of this program guide, the customer can schedule a recording of Subscription Programming that will be telecast at a later time. More particularly, the customer may scroll through the listing of channels and programs in the program guide, select a future program that he or she wishes to record, and then issue a command to record that program by pressing the "record" button.

19. Second, while viewing programming then being telecast on Cablevision's cable television systems, the customer can simply press the "record" button on the remote control to initiate the recording of such programming at that time. By issuing that command, the recording of the currently-airing program commences at the point in the program when the customer issued the recording command.

20. By whichever means the customer initiates the recording, all resulting processes in the set-top box and the other components of the RS-DVR system occur automatically, meaning that they occur with no human intervention or decision-making.

21. When the set-top box receives signals from the remote control, one component of the hardware in the box relays the information and instructions using software logic to computer hardware and software located at Cablevision's facilities, which, in turn, automatically execute certain functions to enable the recording of the programming chosen by the customer.

22. When a customer issues a command to record programming, components of the RS-DVR run a series of processes to verify that (a) the customer is authorized to receive the

programming in question, (b) the customer has not already requested that the programming in question be recorded, (c) with respect to a command to record a program issued while the customer is watching the program, there is available room in the storage capacity allocated to such customer to store the programming in question, (d) the recording of the programming will not result in the customer's recording of more than two programs simultaneously, and (e) the customer is not attempting to record programming other than Subscription Programming. The RS-DVR executes these functions automatically.

23. If one or more of the above-listed criteria are not met, the RS-DVR, using software logic, directs the set-top box to display an error message on the television screen, which requires the customer to take remedial steps.

REDACTED

25. Once the RS-DVR has executed all of the functions necessary for the scheduling, identification, and association with the set-top box of the programming the customer has chosen to record, it automatically sends signals through software logic to the Arroyo Server that contains the storage capacity associated with the particular set-top box that commanded the recording.

REDACTED

REDACTED

28. At various points during the RS-DVR processes discussed above, data is "buffered," meaning that small fragments of programming data are placed in random access memory for a brief period of time in order to effectuate system processes.

29. Whenever a customer issues a recording command for a particular program, a separate and distinct copy of the program is written to disk in that customer's storage capacity. When multiple customers issue a recording command for the same program, a separate copy of the program is written to disk for each customer who issued a recording command for such program; a separate copy is stored in the storage capacity allocated to each such customer. For example, if 1000 customers elect to record the February 25th 9:00 p.m. showing of Desperate Housewives, 1000 separate and distinct copies of that specific showing are made, each copy uniquely associated by identifiers with the set-top box of the customer who made the copy. Each customer has the ability to access only the copy that is associated with his set-top box and cannot access any copies associated with the set-top box of another customer.

30. If no Cablevision customer issues a recording command for a particular program, no copy of that program is ever written to disk in any customer's storage.

31. After a customer initiates the recording of a program, the resulting electrical and mechanical processes that take place in the Arroyo Server happen automatically, meaning that they occur with no human intervention or human decision-making.

32. The RS-DVR makes no back-up copies of any copy of a program that a customer has recorded.

PLAYBACK

33. If a customer wants to play back a program that he recorded, he must initiate playback (*i.e.*, by pressing play on his remote) through the same set-top box through which he made the recording, and by doing so he accesses the particular and unique copy associated with that set-top box.

34. After a customer initiates playback, the resulting processes that take place in the Arroyo Server happen automatically, meaning that they occur with no human intervention or human decision-making.

35. When a customer issues a recording command for a particular program through the program guide, software relays a message through which the program will appear on the customer's "Scheduled Recording List." When the recording of a particular program for which a customer issued a recording command is complete, the Arroyo Server sends a message through software logic informing other components of the RS-DVR that the programming has been recorded, and the next time the customer pulls up his or her list of recorded programs, a component of the RS-DVR system automatically relays the message through software logic to the set-top box, so that the program will appear on the customer's list of recorded programs.

36. Once a program appears on a customer's recorded list, the customer may use the remote control to access the program from the list. A customer's recorded list is uniquely identified with the particular set-top box through which the recording commands were made.

meaning that a customer can play back content only using the same set-top box through which the recording commands were made.

37. The customer may issue one of several commands with respect to the recorded programs, such as play or delete. When the customer issues a command to play, he or she sends an infrared signal from the remote control to the set-top box, which signal is then automatically forwarded through software logic and using Internet protocol to other components in the RS-DVR, which verify that the playback command is valid, determine the location of the recorded content and, if the request is valid, automatically direct the playback command to the Arroyo Server on which the recorded content is stored.

38. The playback command contains a program identifier that includes information that enables the Arroyo Server to locate the particular copy of the requested program associated with the customer's set-top box and residing in his storage.

39. Once the Arroyo Server receives a playback command for a particular customer's program, it retrieves that customer's unique copy from the storage allocated to such customer and streams it via the RS-DVR system to that individual customer's set-top box.

40. As when a customer records, data is "buffered," meaning that small fragments of programming data are placed in random access memory for a brief period of time in order to effectuate system processes.

41. A customer's playback command activates the playback process only with respect to a copy of a program that is associated with the set-top box through which the playback command is made, and the customer cannot activate the playback process with respect to a copy of a program associated with another customer's set-top box. Only the set-top box through which the customer issued a playback command will be able to access the streamed program, because it will be the only set-top box with the appropriate conditional access (decryption) key

and the unique identifier necessary to access the content. The set-top box receives the stream of content and streams the content to the television monitor for viewing.

42. The stream containing the program that is sent to the set-top box through which the subscriber initiated playback is also streamed on the same RF signal as is delivered to every set-top box of every subscriber on a group of one to four adjacent nodes (with each node generally consisting of 500 homes or fewer), and therefore travels to every set-top box on the node group; however, the particular stream consisting of the program being played back by the subscriber can be received only by the subscriber who initiated the playback, because only that subscriber's set-top box has the conditional access (decryption) keys necessary to receive that stream. With respect to any given playback, there is no other streaming from any Cablevision server to any Cablevision subscriber other than that described above.

43. After a customer initiates the playing back of a program, the resulting electrical and mechanical processes that take place in the Arroyo Server happen automatically, meaning that they occur with no human intervention or human decision-making.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Bethpage, New York
August 25, 2006

Stephanie Mitchko
Vice President, Interactive Platform Development
Cablevision Systems Corporation